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<110> DRAKE, Caroline Rachel
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SHIPTON, Catherine Ann

<120> Enhanced Accumulation of Carotenoids in Plants

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<141> 2005-09-14

<150> PCT/GB2004/001241

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<150> US60/457,053

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 <213> Zea mays

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<211> 1233

<212> DNA

<213> Zea mays

<400> 12

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 <213> *Oryza* sp.

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 <211> 420
 <212> PRT
 <213> Oryza sp.

<400> 14

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Tyr Leu Pro Asn Asn Lys Glu Lys Lys Arg Arg Trp Ile Leu Cys Ser
 35 40 45

Leu Lys Tyr Ala Cys Leu Gly Val Asp Pro Ala Pro Gly Glu Ile Ala
 50 55 60

Arg Thr Ser Pro Val Tyr Ser Ser Leu Thr Val Thr Pro Ala Gly Glu
 65 70 75 80

Ala Val Ile Ser Ser Glu Gln Lys Val Tyr Asp Val Val Leu Lys Gln
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Ala Ala Leu Leu Lys Arg His Leu Arg Pro Gln Pro His Thr Ile Pro
 100 105 110

Ile Val Pro Lys Asp Leu Asp Leu Pro Arg Asn Gly Leu Lys Gln Ala
 115 120 125

Tyr His Arg Cys Gly Glu Ile Cys Glu Glu Tyr Ala Lys Thr Phe Tyr
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Leu Gly Thr Met Leu Met Thr Glu Asp Arg Arg Arg Ala Ile Trp Ala
 145 150 155 160

Ile Tyr Val Trp Cys Arg Arg Thr Asp Glu Leu Val Asp Gly Pro Asn
 165 170 175

Ala Ser His Ile Thr Pro Ser Ala Leu Asp Arg Trp Glu Lys Arg Leu
 180 185 190

Asp Asp Leu Phe Thr Gly Arg Pro Tyr Asp Met Leu Asp Ala Ala Leu
 195 200 205

Ser Asp Thr Ile Ser Lys Phe Pro Ile Asp Ile Gln Pro Phe Arg Asp
 210 215 220

Met Ile Glu Gly Met Arg Ser Asp Leu Arg Lys Thr Arg Tyr Lys Asn
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Phe Asp Glu Leu Tyr Met Tyr Cys Tyr Tyr Val Ala Gly Thr Val Gly
 245 250 255

Leu Met Ser Val Pro Val Met Gly Ile Ala Pro Glu Ser Lys Ala Thr
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Thr Glu Ser Val Tyr Ser Ala Ala Leu Ala Leu Gly Ile Ala Asn Gln
 275 280 285

Leu Thr Asn Ile Leu Arg Asp Val Gly Glu Asp Ala Arg Arg Gly Arg
 290 295 300

Ile Tyr Leu Pro Gln Asp Glu Leu Ala Glu Ala Gly Leu Ser Asp Glu
 305 310 315 320

Asp Ile Phe Asn Gly Val Val Thr Asn Lys Trp Arg Ser Phe Met Lys
 325 330 335

Arg Gln Ile Lys Arg Ala Arg Met Phe Phe Glu Glu Ala Glu Arg Gly
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Val Thr Glu Leu Ser Gln Ala Ser Arg Trp Pro Val Trp Ala Ser Leu
 355 360 365

Leu Leu Tyr Arg Gln Ile Leu Asp Glu Ile Glu Ala Asn Asp Tyr Asn
 370 375 380

Asn Phe Thr Lys Arg Ala Tyr Val Gly Lys Ala Lys Lys Leu Leu Ala
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Leu Pro Val Ala Tyr Gly Arg Ser Leu Leu Met Pro Tyr Ser Leu Arg
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Asn Ser Gln Lys
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 <212> DNA
 <213> Capsicum annuum

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<210> 16
 <211> 1239
 <212> DNA
 <213> *Lycopersicon esculentum*

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<210> 17
 <211> 891
 <212> DNA
 <213> *Erwinia* sp.

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<210> 19
 <211> 1488
 <212> DNA
 <213> *Erwinia* sp.

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<210> 20
 <211> 839
 <212> DNA
 <213> Oryza sp.

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<210> 21
 <211> 642
 <212> DNA
 <213> Oryza sp.

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<211> 190
<212> DNA
<213> Artificial Sequence

<220>
<223> Catalase gene Intron from Castor Bean

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<210> 23
<211> 171
<212> DNA
<213> Pisum sativum

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<210> 24
<211> 254
<212> DNA
<213> Agrobacterium tumefaciens

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atgacgttat ttatgagatg ggtttttatg attagagtcc cgcaattata catttaatac 180
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atggttactag atcg 254

<210> 25
<211> 193
<212> DNA
<213> Cauliflower mosaic virus

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acccttagta tgtatttgta tttgtaaaat acttctatca ataaaatttc taattcctaa 180
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<211> 238
<212> DNA
<213> Solanum tuberosum

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<210> 27
<211> 2321
<212> DNA
<213> Lycopersicon esculentum

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<210> 28
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 <212> DNA
 <213> Capsicum annuum

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 <212> DNA
 <213> Zea mays

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 <212> DNA
 <213> Oryza sp.

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<210> 31

<211> 1931

<212> DNA

<213> Lycopersicon esculentum

<400> 31

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 <212> DNA
 <213> Capsicum annuum

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